

Relieving Low Back Pain And Improving Mobility For An Adult Patient with Progressive Multifocal Leukoencephalopathy: A Case Report



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Background and Purpose:

- Progressive Multifocal Leukoencephalopathy (PML) is a progressive demyelinating disease caused by the John Cunningham Virus (JCV)¹
- There is no FDA approved JCV- specific treatment²
- Only one other case report found regarding PT interventions
- Purpose: This case report examines interventions administered to address low back pain (LBP) and functional mobility deficits

Case Description:

- 51-year-old male
- Referral for: Low back Pain (7/10), Poor functional mobility and R hemiparesis in a patient with PML
- PMH: PML, HIV+
- Clinical Presentation: Decreased bilateral hip and knee range of motion (ROM), expressive aphasia, impaired executive functioning, decreased balance, ataxic gait, R LE spasticity
- PT diagnosis: R hemiparesis and LBP

Interventions

- Orthopedic manual therapy to address limitations in ROM and relieve discomfort
 - Interventions included: joint mobilization, passive ROM and proprioceptive neuromuscular facilitation stretching
- Therapeutic exercise, Neuromuscular Re-education addressing ROM limitations, strength deficits and impaired functional mobility



Outcomes and Goals:

- Improved low back pain per visual analog scale to 0/10 resting and 0/10 with activity
- Increased LE ROM to WNL
- Improved subjective outcome measure score
- Sustained functional mobility from evaluation
- Pt met all short-term goals (6wks)
- Patient requested discharge for treatment of low back pain and re-evaluation for UE radiculopathy
- Long term goals were not met due to patient's self discharge

Tests & Measures	Initial Evaluation	Discharge
Timed Up and Go (TUG)	35s – Increased Fall Risk ²	35s – Increased Fall Risk ²
Focus on Therapeutic Outcomes (FOTO)	30/100 - G-code modifier CL – 70% impairment)	40/100 – G-code modifier CL – 60% impairment)

Discussion:

- The physical therapy management was successful for relieving low back pain
- The patient did not demonstrate significant improvement in functional mobility
- Cognition declined and negatively impacted therapy
- Future research: establish guidelines for goal setting for patients with progressive neurological conditions

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